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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,313	07/10/2003	Christopher J. Barbazette	34741-926	4770

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EXAMINER
CHANG, SUNRAY

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*10 July 2003*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*10 July 2003*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 20 are presented for examination.

Claims 1 – 20 are rejected.

Claim Objections

2.   Claim 14 is objected to because of the following informalities: "selecting which

messages and failure codes temporarily stored in the local memory will be stored the database",

Line 3 – 4, should be added an "in" between "the" and "database". Appropriate correction is

required.

3.   Claim 15 is objected to because of the following informalities: "tool controller adapted

to monitor some of said messages and alarm signals received form said component controllers",

the "form" between "alarm signals received" and "said component controllers" should be a

"from". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the

United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

another filed in the United States before the invention by the applicant for patent, except that an international application

filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed

in the United States only if the international application designated the United States and was published under Article

21(2) of such treaty in the English language.

4.   **Claims 1 – 8, 10 – 12, 14 – 18 and 20 are rejected** under 35 U.S.C. 102(e) as being

anticipated by Stuart Perry (U.S. P.G. Pub. No. 2003/0220768, and referred to as **Perry**

hereinafter).

5.   **Regarding independent claim 1, Perry** teaches,

A method for gathering messages and failure codes [data collection] in a system including a

processing tool [FAB] having a tool controller [ecentre server, Fig. 3] and a front end component

[tool] having a front end component controller [tool computer, Fig. 5], [0012, Fig. 3] the method

comprising the steps of:

(a) receiving the messages and failure codes [obtaining data, 0014] from the front end

component controller [tool computer, Fig. 5];

(b) filtering the messages and failure codes [filtering, 0014] according to user defined criteria

[custom business rules, 0013];

(c) storing the messages and failure codes filtered in said step (c) in a database [storing the

averaged sample, 0014]; and

(d) presenting the messages and failure codes filtered [transferring, 0015] in said step (c) over a

network [Fig. 4].

6.   **Regarding dependent claims 2 – 6, 16 and 17,**

said component controllers are selected from a group consisting of

(i) a load port assembly controller, (ii) an auto ID controller, (iii) a wafer handling robot controller, (iv) a pre-aligner controller, (v) a minienvironment controller, and (vi) an AMHS controller. [automated manufacturing tools, 0012; tool computer, Fig. 5 and 0059; see also tools in Fig. 3]

Examiner further explains, all cited controllers, for example, load port assembly controller or a minienvironment controller, are processing tool controllers [specification, 0035], each controller, individually, has been given very little patent weight. **Perry** teaches automated manufacturing tools [0012] and tool computer, [Fig. 5 and 0059], also a plurality of tools [Fig. 3].

7.   **Regarding dependent claim 7,**

The method according to claim 1, wherein

- receiving the messages and failure codes in said step (a) comprises receiving the messages and failure codes in real time. [obtaining real-time equipment data, 0101; see also 0057, 0082 and 0091]

8.   **Regarding dependent claim 8,**

The method according to claim 1, wherein

- presenting the messages and failure codes in said step (d) comprises presenting the messages and failure codes [view graphs, 0103] in real time [0101 – 0102, 0044].

9.   **Regarding dependent claim 10,**

The method according to claim 1, wherein presenting the messages and failure codes over a

network in said step (e) includes

(i) exporting messages and failure codes stored in said step (c) [transferring data to OEM from

FAB, 0015] and

(ii) generating a report [reporting tool, 0122] that organizes the exported messages and failure

codes into a user readable format [uncompressed, 0122]. [see also 0016 – 0018 and 0079]

10.   **Regarding dependent claim 11,**

The method according to claim 10, wherein generating a report includes

(i) defining which messages and failure codes stored in the database are relevant, keyed

relational database, 0019]

(ii) defining a start date and time for the report, [activities is logged by date, time, activities,

0088]

(iii) defining an end date and time for the report, [activities is logged by date, time, activities,

0088]

(iv) gathering the relevant messages and failure codes from the database that are between the

start date and time and the end date and time, [average intervals, holding period, minimum,

maximum, number of times, exact value and time stamp, 0125] and

(iv) presenting the gathered messages and failure codes in a readable format. [reporting tool,

uncompressed, 0122] see also [0123 – 0126]

11.   **Regarding dependent claim 12,**

The method according to claim 1, wherein receiving the messages in said step (a) comprises

- receiving messages selected from a group consisting of

(i) event messages, (ii) control messages, and (iii) configuration messages. [system-wide events, 0088; the software also logs every action that occurs, 0083]

12. **Regarding dependent claim 14,**

The method according to claim 1, wherein filtering the messages in said step (b) includes

(i) storing [storing, 0014] the messages and failure codes [obtaining data, 0014] temporarily in a local memory,

(ii) selecting which messages and failure codes temporarily stored in the local memory will be stored the database, [obtaining a representative sample, averaging the sample, 0014] and

(iii) forwarding the selected messages to the database. [storing the averaged sample, 0014]

13. **Regarding independent claim 15,**

- A data collection and diagnostic system, comprising: [0011, 0012]

- a processing tool [FAB, 0012] having a plurality of front end components [at least one automated manufacturing tool, 0012], each one of said plurality of front end components having a component controller [tool computer, Fig. 5, 0059] adapted to send messages and alarm signals relating to the operation of said front end component [collect and process data from the tool, 0013; 0059];

- a tool controller [ecentre server, Fig. 3, 0047] electrically coupled to each one of said component controllers [tool computer, Fig. 5, 0059],

- said tool controller [ecentre server, Fig. 3, 0047] adapted to monitor some of said messages and alarm signals received [collect and process data from the tool, 0013; 0059] from said component controllers [tool computer, Fig. 5, 0059];

- a data acquisition device [tool Gateway server, 0062, Fig. 3] electrically coupled to said component controllers [tool computer, Fig. 3 & 5, 0059],

- said data acquisition device [tool Gateway server, 0062, Fig. 3] adapted to monitor all of said messages and alarm signals received from said component controllers, [0062] and including:

- a processor adapted to filter [filter the data] said messages and alarm signals received from said component controllers [obtained data from an automated manufacturing tool, 0014];

- a database adapted to store said messages and alarm signals filtered by said processor [obtaining a representative sample of the filtered data, 0014]; and

- a network interface; [firewall, Fig. 3] and

- a central computer electrically coupled to said tool controller and said network interface and database [storing, 0014] by a network. [Fig. 3]

14.   **Regarding independent claim 18,**

The system according to claim 15, wherein

- said network comprises a local area network. [e-diagnostic LAN, 1514 Fig. 15; paragraph 0140]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

15.   **Claims 9, 13 and 19 are rejected** under 35 U.S.C. 103(a) as being unpatentable over

Perry and in view of Chang-Meng B. Hsiung (U.S. P.G. Pub. No. 2003/0109951 and referred to

as **Hsiung** hereinafter).

(**Perry** as set forth above generally discloses the basic inventions.)

16.   **Regarding dependent claim 9,**

Perry teaches presenting the messages and failure codes over a network in said step (e)

includes providing access to the network. [java technology based application, webSphere, 0073

and Fig. 7 – 14; data window, 0133 and Fig. 9]

Perry does not teach Internet browser.

Hsiung teaches Internet browser [browser software, 0040, 0203 and 0218], for the purpose of acquiring data over the Internet [0040].

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Perry** to include "Internet browser"for the purpose of acquiring data over the Internet.

17.   **Regarding dependent claims 13 and 19,**

Perry teaches presenting the messages and failure codes over a network. [reporting tool, uncompressed, 0122] see also [0123 – 0126]

Perry does not teach a wireless network.

Hsiung teaches a wireless network [wireless communication, 0028 and 0031; wireless LAN, 0230] for the purpose of enabling the mobile consulting service [0229].

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Perry** to include "a wireless network" for the purpose of enabling the mobile consulting service.

Conclusion

18.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ankutse et al. (U.S. Patent No. 6,727,106) discloses a statistical process control in semiconductor manufacturing. Shi et al. (U.S. Patent No. 6,772,034) discloses an engineering data collection subsystem for a process control system.

19.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang
Patent Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office

June 24, 2005

Anthony Knight
Supervisory Patent Examiner
Group 3600